ABSTRACT

Powders for surface modification comprising a pharmacologically active ingredient or a pharmacologically active ingredient and a diluent are surface-modified with light silicic anhydride to prepare pharmacologically active ingredient-comprising surface-modified powders having an improved flowability that enables direct tabletting. The thus surface-modified powders are then blended with excipients including partially alphanized starch or crospovidone, and the blend is directly tableted to produce fast disintegrating tablets. Light silicic anhydride is added to the powders for surface modification comprising a pharmacologically active ingredient or a pharmacologically active ingredient and a diluent, in a proportion of approximately 0.1 to 5 wt%, and partially alphanized starch or crospovidone in a proportion of approximately 10 to 60 wt%, based on the total weight of tablet. The thus obtained surface-modified powders comprising a pharmacologically active ingredient exhibit an angle of repose of 42° or less, and the tablets obtained are fast disintegrating tablets capable of rapidly disintegrating when holding water together in the oral cavity. Multilayered surface modification technique using the combination of dry coating with titanium oxide or erythritol having a mean particle size of 3 μm or less in combination with the aforesaid surface modification enables to produce fast disintegrating

tablets which solve tabletting problems that might be caused when using a low melting or highly sticky pharmacologically active ingredient. The multilayered surface modification technique further enables to produce fast disintegrating tablets with an improved taste, when using a pharmacologically active ingredient having a bitter or stinging taste.